

Brief Communication

**A new host and locality record for *Toxocara apodemi*
(Olsen, 1957) (Nematoda : Ascarididae) from
striped field mice, *Apodemus agrarius*
(Pallas) (Rodentia : Murinae) in Changsha, China**

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Ascarid nematode was obtained from small intestines of 23 of 37 *Apodemus agrarius* (Pallas) (Rodentia : Murinae) examined, which were captured in Changsha (28° 10'N Lat., 113° 00'E Long.), Hunan, People's Republic of China from May to June 1993. Up to the present, the ascarid nematode has not been reported in the genus *Apodemus* in China. In this paper, morphological data are given to improve definitive identification of this ascarid and to advance precision of studies on helminth faunas associated with rodents endemic to China.

Description of *Toxocara apodemi* (Olsen, 1957)²⁾. Mature male (One specimen) : Body length 32.9 mm ; body width at mid-body 1.55 mm (Fig. 13). Lips 0.16 mm in height ; one dorsal lip having 2 large papillae and 2 ventral lips having 1 large and 2 minute papillae (Figs. 1-5). Cervical alae absent. Nerve ring 0.41 mm from head end (Fig. 4). Excretory pore not obvious. Esophagus including posterior bulb 2.92 mm in length ; intestinal caecum absent (Fig. 6). Pre and post anal papillae present in ventral side of tail, but those of right line not obvious (Figs. 7-11). Spicules equal, 0.61 mm in length (Fig. 8). Tail 0.27 mm in length (Figs. 10 and 11). Immature male (One specimen) : Body length 3.3 mm ; body width at mid-body 0.16 mm. Lips 0.04 mm in height. Nerve ring 0.17 mm from head end. Excretory pore 0.40 mm from head end. Esophagus 0.57 mm in length. Spicule not obvious. Tail 0.08 mm in length. Mature female (two specimens) : Body lengths 49.3 and 50.7 mm ; body widths 1.64 and 1.77 mm. Lips 0.31 mm in diameter. Nerve rings 1.50 mm from head end. Excretory pores not obvious. Esophagi 2.69 and 2.90 mm in length.

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Vulva openings 13.7 mm from head end. Eggs spherical, 78 and 80 μ m in diameter (Fig. 12). Tails 0.50 mm in length.

Taxonomic summary.

Specimen deposited: Animal Medicine Department, Inner Mongolia College of Agriculture and Animal Husbandry, Huhhot, China, and Department of Veterinary Medicine (Parasitology), Rakuno Gakuen University, Hokkaido, Japan.

Host: *Apodemus agrarius* (Pallas) (Rodentia: Murinae).

Locality: Changsha, People's Republic of China.

Site in host: Small intestine.

Date of collection: May 29 to June 6, 1993.

Discussion. This nematode species belongs to the genus *Toxocara* Stiles, 1905 (Nematoda: Ascarididae: Toxocarinae), as it lacks intestinal caecum or interlabia and parasitizes terrestrial mammals.^{1,4)} Among the species belonging to this genus, present specimen showed a close similarity to *Toxocara brevispicula* (Sadovskaya, 1953) sensu Ryzhikov *et al.*, 1979 (syn. *Ascaris brevispiculum*) and *T. apodemi* (Olsen, 1957) (syn. *Neoascaris apodemi*) in morphology, metric data and host spectrum. *T. brevispicula* was reported from both *A. agrarius* and *A. sylvaticus* in Russia,³⁾ on the other hand, *T. apodemi* was reported from *A. peninsulae* in Korea.²⁾ However, present specimens differs in spicule length from *T. brevispicula*; viz., 0.21 mm in *T. brevispicula* and ca.1/3 of the length of the present specimens. Although main measurements, especially body length, of the present specimens were slightly smaller than that in its original description,²⁾ morphological characteristics and spicule length almost completely match those of *T. apodemi*. Hence, present report is not only of a new host but also a locality record for *T. apodemi*.

Acknowledgements

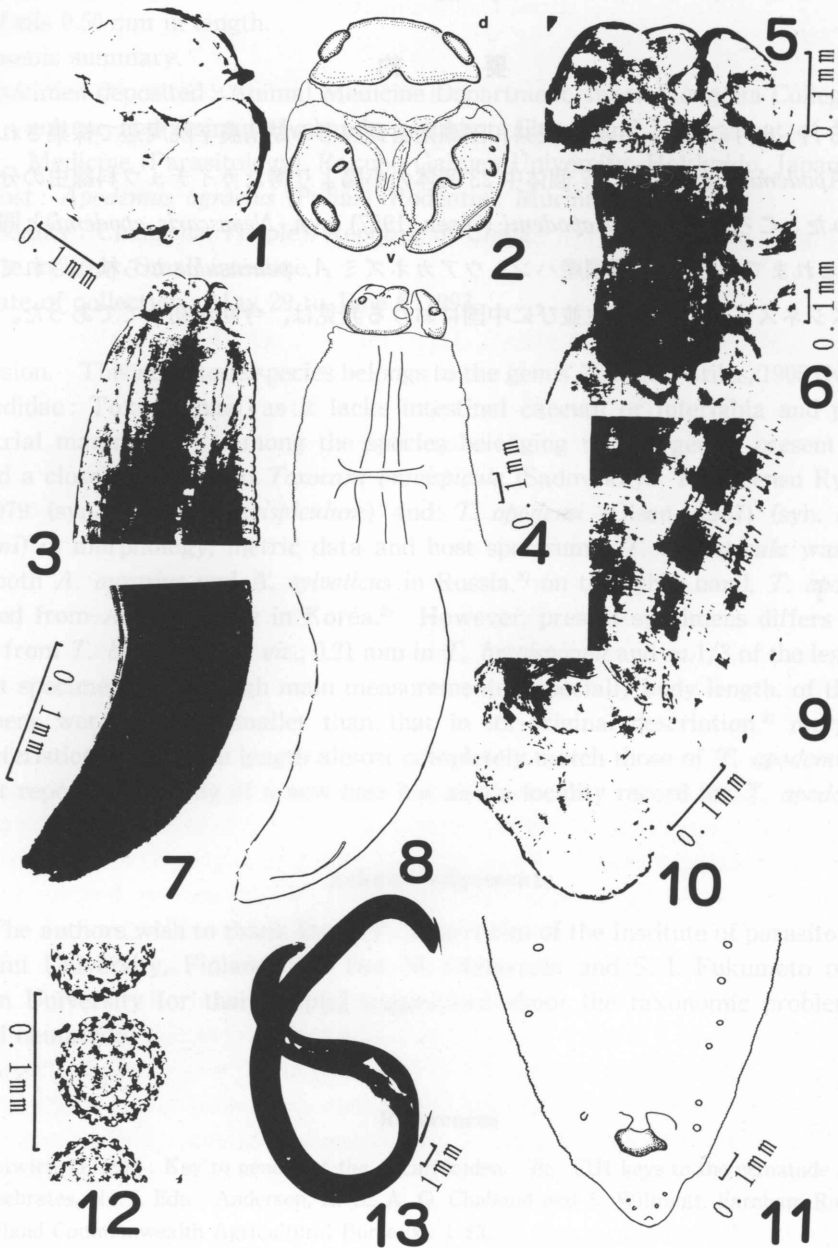
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要 約

1993年5月～6月にかけ、中華人民共和国湖南省長沙市の湖南農学院周辺で採集されたセスジネズミ *Apodemus agrarius* 37個体中23個体の小腸より得たカイチュウ科線虫の分類学的検討を試みたところ、*Toxocara apodemi* (Olsen, 1957) (syn. *Neoascaris apodemi*)と同定された。本種はこれまでのところ、韓国産ハントウアカネズミ *A. peninsulae* から検出されているのみで、セスジネズミにおける寄生並びに中国における発見は、今回が初めてであった。



Figures 1-13. *Toxocara apodemi* from *Apodemus agrarius* in Changsha, China.

Figs. 1 and 2. Anterior extremity of female, apical view. d; Dorsal, v; ventral.

Figs. 3-5. Anterior extremity of male, ventral view.

Fig. 6. Posterior extremity of esophagus and bulb of female.

Figs. 7 and 8. Posterior extremity of male, lateral view.

Fig. 9. Pre-anal papillae of left line of male.

Figs. 10 and 11. Tail of male, ventral view.

Fig. 12. Eggs.

Fig. 13. Whole body of mature male.